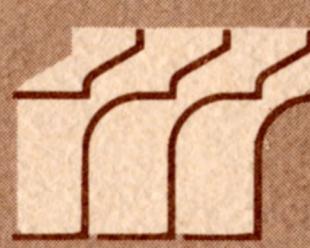


**Microsoft
Basic Compiler
Documentation**

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The Microsoft BASIC Compiler and associated software are accompanied by the following documents:

1. **BASIC-80 REFERENCE MANUAL**
provides syntax and detailed explanations of all Microsoft BASIC statements and functions.
2. **BASIC COMPILER USER'S MANUAL**
gives the BASIC compiler command format, error messages, and general directions for the use of the compiler.
3. **MICROSOFT UTILITY SOFTWARE MANUAL**
describes the command formats for the MACRO-80 Assembler and LINK-80 Linking Loader, and provides a reference for MACRO-80 pseudo-operations.

The following changes should be noted in the BASCOM Reference Manuals.

BASIC-80 Reference Manual Version 5.2

2.3 CHAIN

The CHAIN statement with MERGE option now leaves the files open and preserves the current OPTION BASE setting.

2.53 RANDOMIZE

The prompt string has been changed to:

Random Number Seed (-32768 to 32767) ?

3.14a INKEY\$

Format: INKEY\$

Action: Returns either a one character string containing a character read from the terminal or a null string if no character is pending at the terminal. No characters will be echoed and all characters are passed through to the program except for Control-C which terminates the program. (In the compiler version Control-C is also passed through to the program.)

Example: 1000 'Timed Input Subroutine

```
1010 RESPONSE$=""  
1020 FOR I%=1 TO TIMELIMIT%  
1030 A$=INKEY$ : IF LEN(A$)=0 THEN 1060  
1040 IF ASC(A$)=13 THEN TIMEOUT%=0 : RETURN  
1050 RESPONSE$=RESPONSE$+A$  
1060 NEXT I%  
1070 TIMEOUT%=1 : RETURN
```

3.41 VAL

The VAL function now strips leading blanks, tabs, and linefeeds from the argument string. For example,

VAL("- -3")

now returns -3 instead of 0.

3.42 VARPTR(#<file number>)

For random files VARPTR returns the address of the FIELD buffer instead of the disk I/O buffer.

CP/M BASIC-80 Changes

1. For systems with CP/M 2.x large random files are now supported. The maximum logical record number is 32767. If a record size of 256 is specified, then files up to 8 megabytes can be accessed.

L.1 OPERATIONAL DIFFERENCES

The following statements and commands are not implemented and will generate an error message:

AUTO CLEAR CLOAD CSAVE CONT DELETE EDIT NEW
LIST LLIST RENUM SAVE LOAD MERGE COMMON

The maximum physical line length is now 253 characters.

L.2 LANGUAGE DIFFERENCES

The COMMON statement will be implemented in a future release of the BASIC compiler; however, its implementation will be different from the BASIC interpreter's version. The COMMON statement will be similar to FORTRAN's COMMON statement.

The CHAIN and RUN statements have been implemented in their simplest form only; i.e., CHAIN filename\$. For CP/M, the default extension is .COM. BASCOM programs can chain to any COM file; however, the command line information is not automatically passed. Command line information can be passed by POKEing the appropriate information into the command line area.

The %INCLUDE <file name> statement has been added to the compiler to allow including source from an alternate file. The %INCLUDE statement must be the last statement on a line. The format of the %INCLUDE is shown below:

<line number> %INCLUDE <file name>

For example,

999 %INCLUDE SUB1000.BAS

BASIC Compiler User's Manual

1.1.1 BASIC Compilation Switches

The /Z switch tells the compiler to use Z80 opcodes whenever possible. The generated code is listed using 8080 opcodes except in those cases where Z80 opcodes have been used.

The /T switch tell the compiler to use BASIC-80 Version 4.51 execution conventions in the following cases:

1. FOR/NEXT loops are always executed at least one time.
2. TAB, SPC, POS, and LPOS perform according to 4.51 conventions.
3. Automatic floating point to integer conversions use truncation instead of rounding except in the case where a floating point number is being converted to an integer in an INPUT statement.
4. The INPUT statement now leaves the variables in the input list unchanged if only a carriage return is entered. If a "?Redo from start" message is issued, then a valid input list must be given. A carriage return in this case will generate another "?Redo from start" message.